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WEEKLY PLANNING

3/09/06

Don Lynch

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BLM Test

BLM Test Installation

He Bags

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LN_2 Storage Dewar for BBC

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LN_2 Storage Dewar for BBC Remaining Tasks

Protection for Vacuum port

Plumb in LN2 Controls

Valve off exsisting dry air supply to BBC leaving switch valve to allow using dry air in future if necessary (e.g. maintenance of LN2 supply)

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Next Access Day

- Expect next access day (8 hrs) to be March 22
- Expect shorter controlled accesses before then
- Subsystems must arrange for tech assistance prior to access day or don't expect assistance. (see Don Lynch or John Haggerty)
- PHENIX Techs only on CM lift platform unless accompanied by PHENIX Tech
- Planned:
    - MPC electronics installation
    - HBD Prep?
    -

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MPC

MPC Electronics enclosure built waiting for cards, work permit for crane is in place. Expect to install in next access day

Location for MPC electronics on top of center crate on eyebrow

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Other Projects

TOF West

- Expect detectors to be at BNL by May 1.

HBD

- Efforts underway

MPC North

- New enclosure & fixture design to be based on lessons learned from south installation

RXNP

- Design Proceeding

Muon RPC

- Moving toward CDR in summer '06

Beampipe design

- Concept to be finalized soon

Engineering Documentation

- Documentation/Drawings data base with web based retrieval
- 3D model at detector outline level with utility envelopes
- utility schematics

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Plans to Install HBD Prototype in PHENIX

(from C. Woody DC presentation)

- 3/8 – 3/19 Complete tests with prototype at BNL
  - · Complete gain and source tests
  - · Install mounting brackets
  - · Install and test new preamp board
- 3/20 – 4/2 Take detector to Stony Brook
  - • Practice installing GEMs in glove box
  - • Produce photocathode and install
  - • Test detector with CF_4 using ^{55}Fe source and flash lamp
- 4/3 – 4/9 Bring detector to PHENIX electronics room
  - • Test detector with prototype readout electronics chain
- 4/10 – 4/23 Install detector into PHENIX below beam pipe
  - • Test gas quality with actual gas system
  - • Test detector with prototype readout electronics in place
  - • Develop and debug readout software
  - • Calibrate with mips
- 4/24 – 4/30 Install detector to final position in PHENIX
  - • Collect sample of electron data (~ 100 e's/pad/shift $\Rightarrow$ 1 week data taking)

Estimate by T.Sakaguchi : min bias + ERT p>800 MeV/c

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Status of Final Detector

(from C. Woody DC presentation)

- PCB material arrived at CERN and PCB is now under construction (delivery to Weizmann ~ mid March)
- Panels for final detector are also under construction at Weizmann
- GEM's are being produced at CERN and delivered to Weizmann for testing
- Aiming for completion of detector box by ~ mid April (will then ship to Stony Brook)
- Glove box to arrive ~ end of March
- Detector to arrive at Stony Brook ~ end of April
- Start producing photocathodes and install during May
- Could have final detector with 2-3 detector modules installed (all that is needed with existing prototype readout electronics) sometime during May
- Possible test in PHENIX end of May – early June

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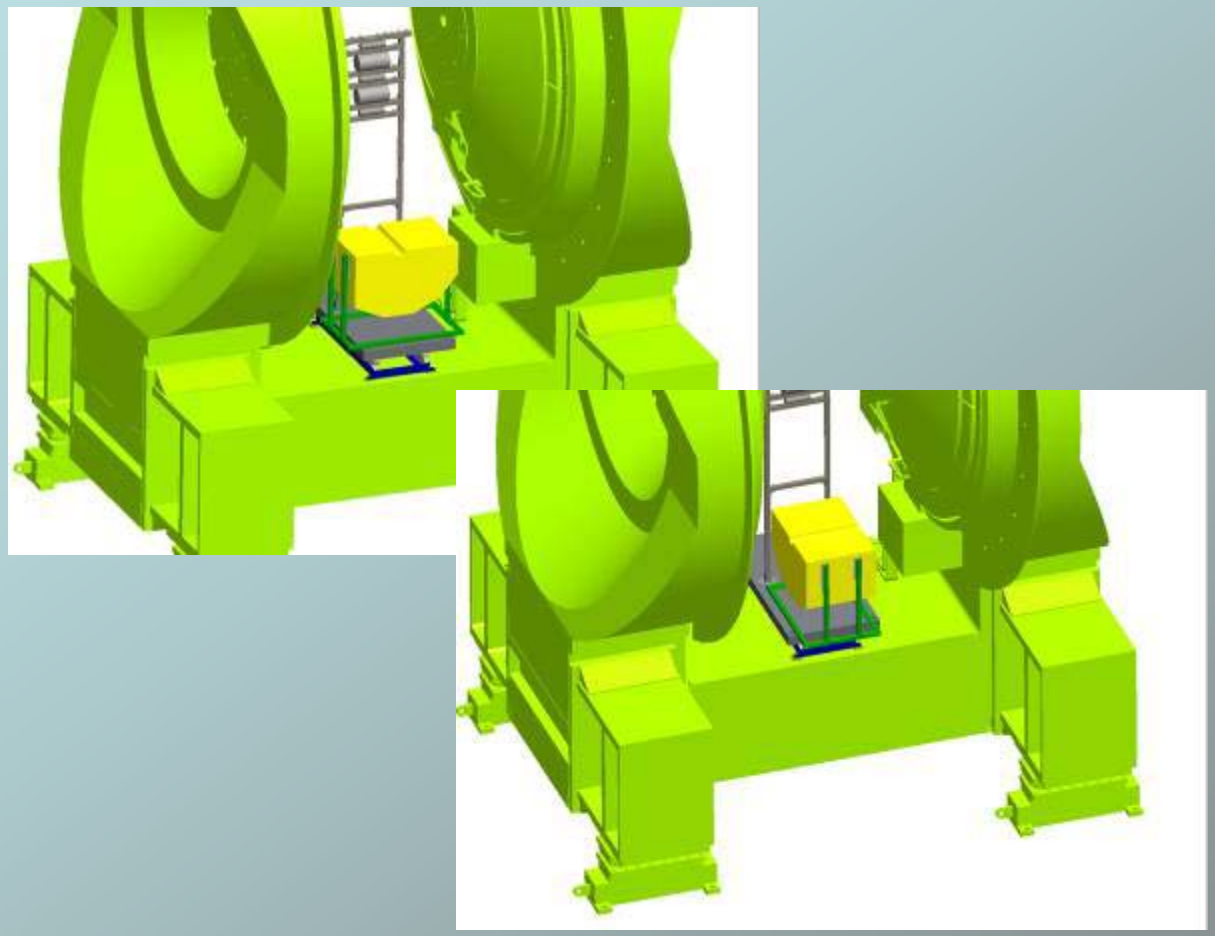
HBD Prototype Mounted on lift table



Purpose:

1. test electrical connections
2. test gas connections
3. test system performance
4. easier access to make minor adjustments
5. minimize effect on rest of detector

2-3 weeks in this position then move to mounted position

Can exist simulataneously with BLM test in this orientation

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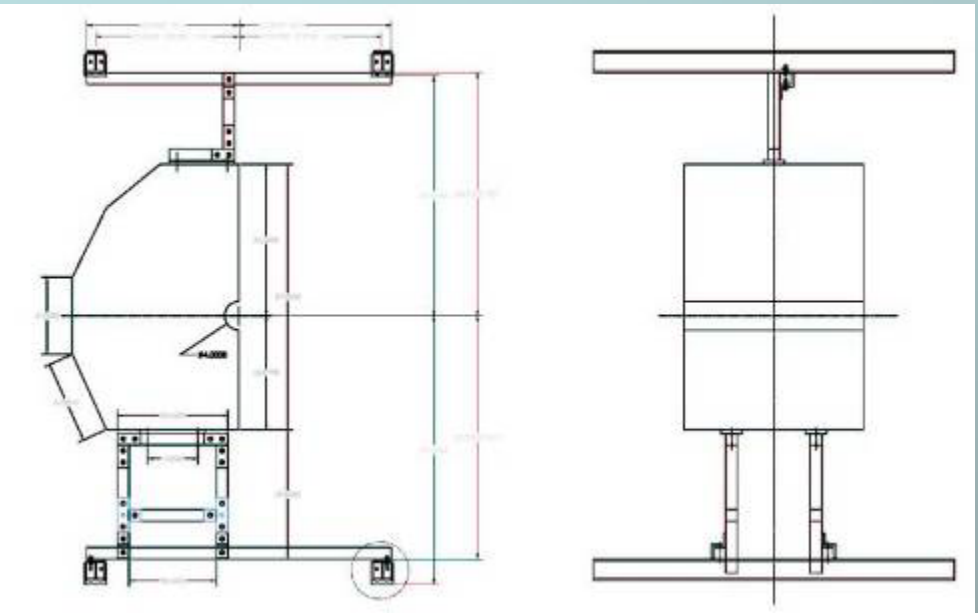
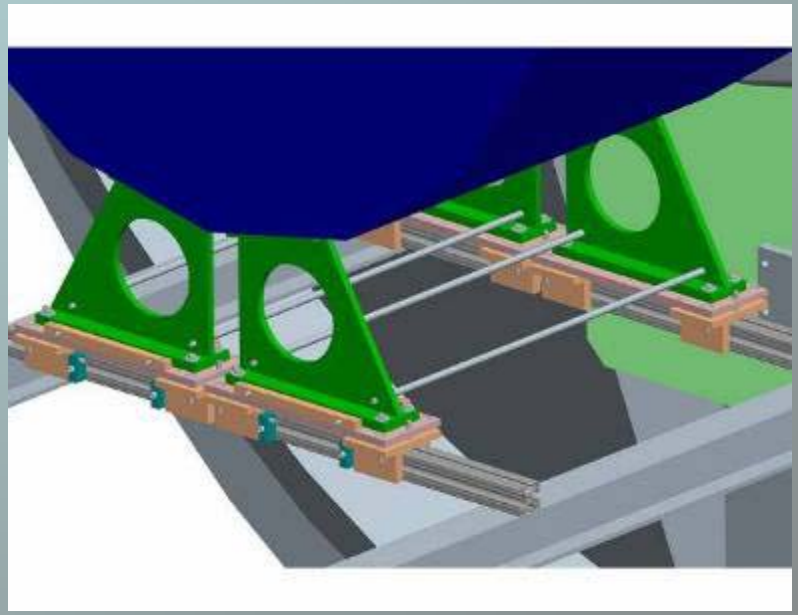
HBD Prototype Mounting





Prototype can not use final design mounting due to differences in location of connectors and other basic design differences.

Prototype mounting to be fabricated from fg unistrut.

Design of full detector details nearly complete and ready for fabrication.

Need to design cable management for signal cables

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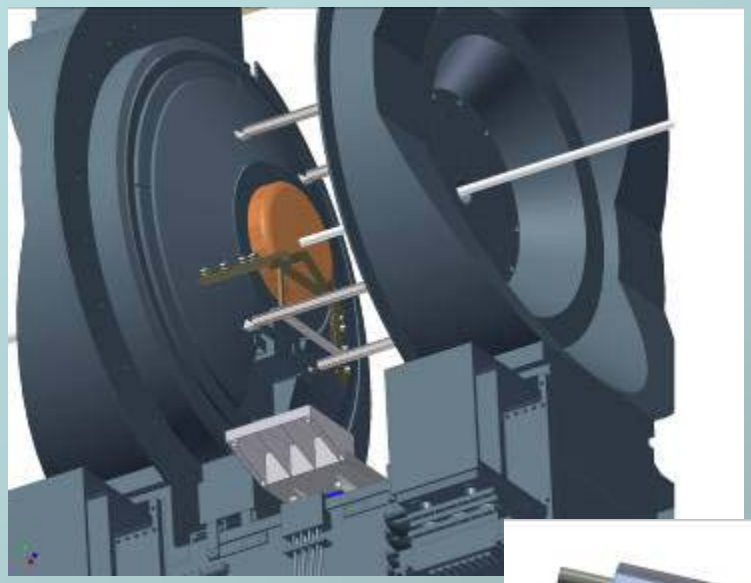
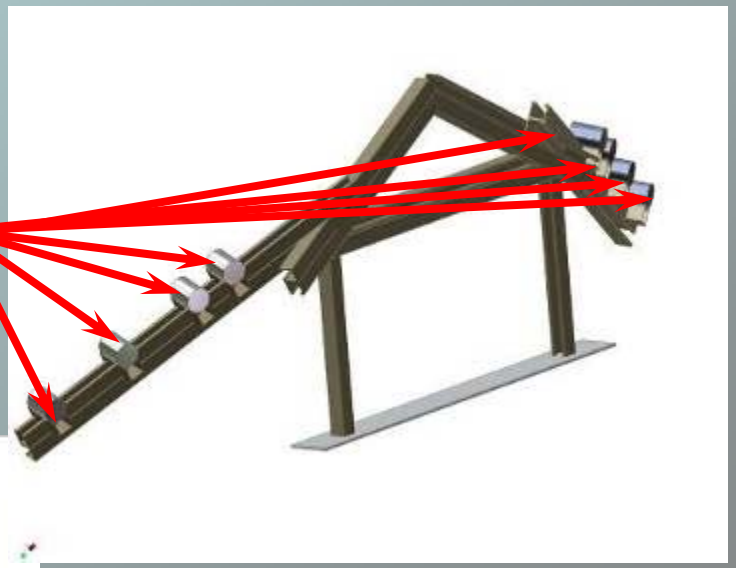
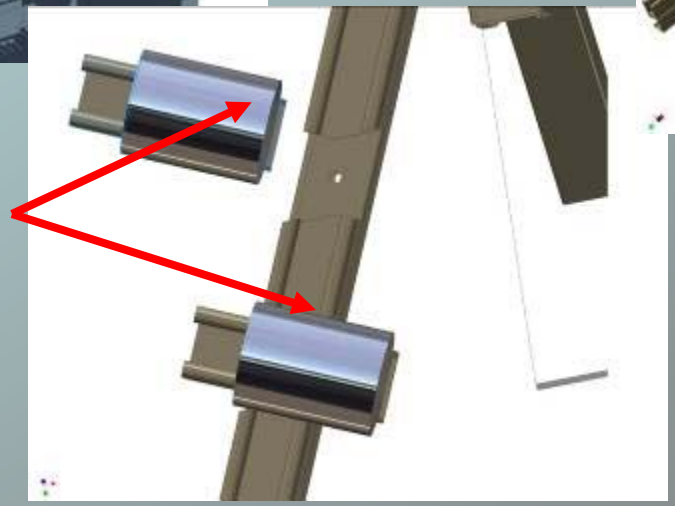
RXNP PMT in magnetic field tests Part Deux







New Photo-multiplier Tubes (PMT's) to be tested?

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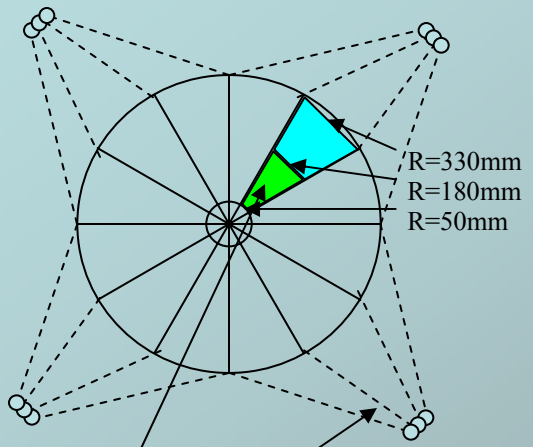
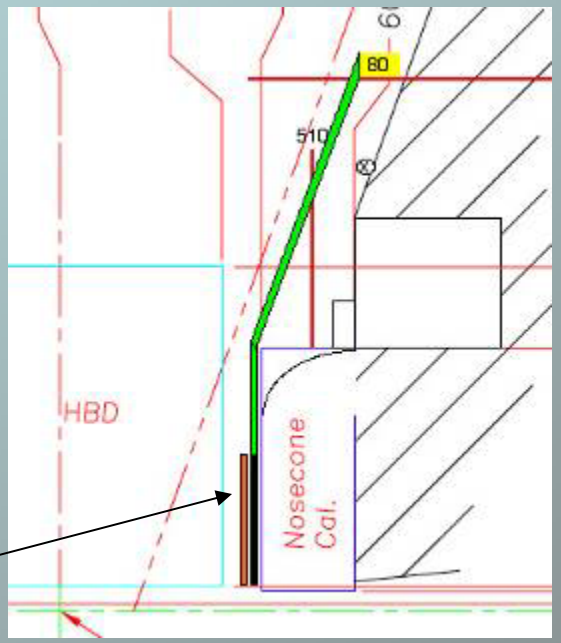
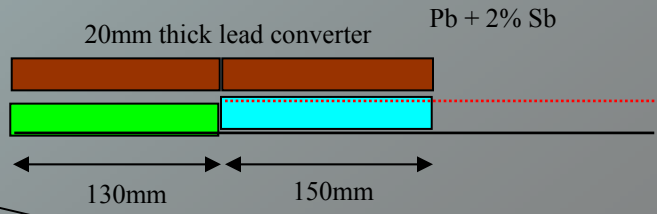
RXNP DETECTOR

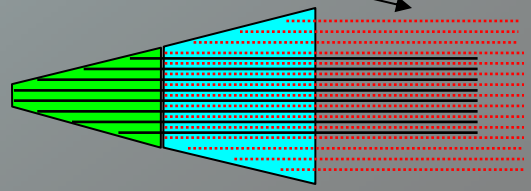




- 2cm thick scintillator + 2cm thick lead converter
  - Enhance RP resolution via adding neutral particles
- fiber light guide
  - flexibility of mechanical structure.
- 12 segments in phi and 2 segments in eta@(1.0, 2.8)
  - Detector stable against dead channel
  - help removing auto-correlation effect.
- Hamamtsu fine mesh PMT for light readout
  - Good dynamic range and work in high field.
- EMCal FEE for electronic readout.
  - good dynamic range.

outer painting on the converter surface
or stainless steel case with lead inside





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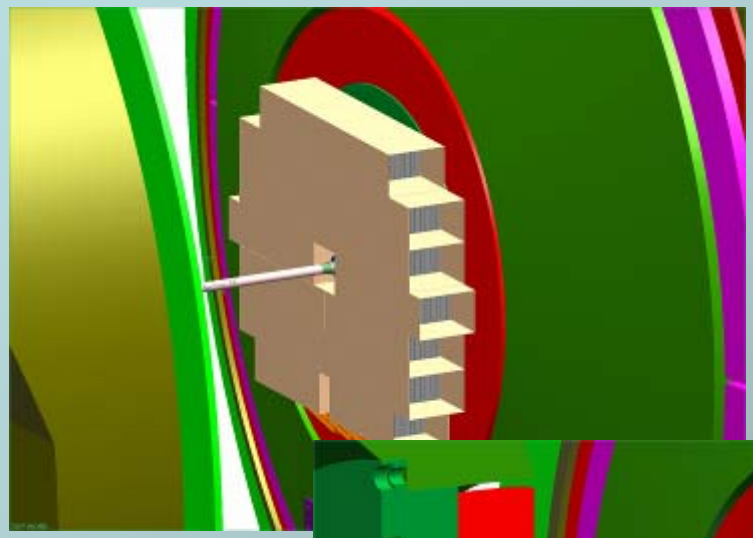
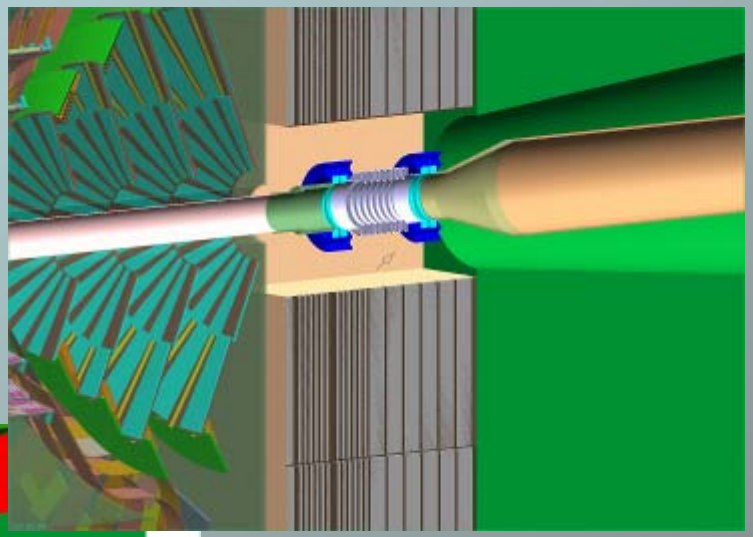
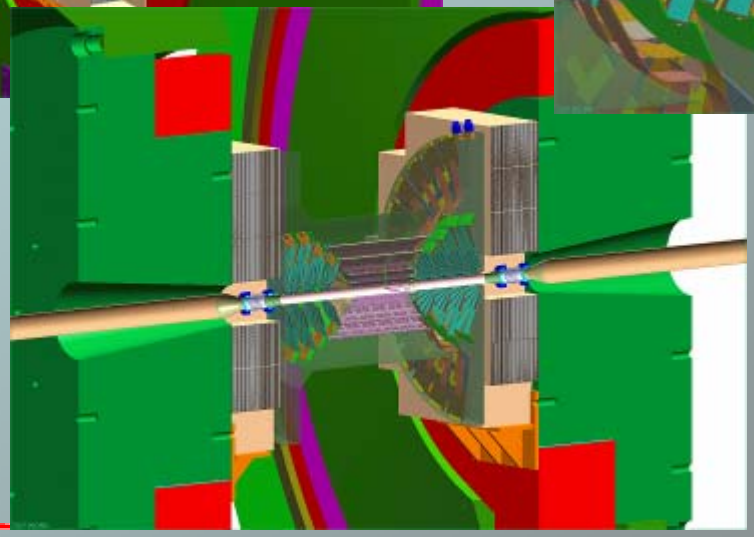
New Beampipe for Upgrades







A concept discussed between Jan Boissevain of LANL and D. Lynch of BNL. Requires suport built in to NCC and temporary isolating support to move CM.

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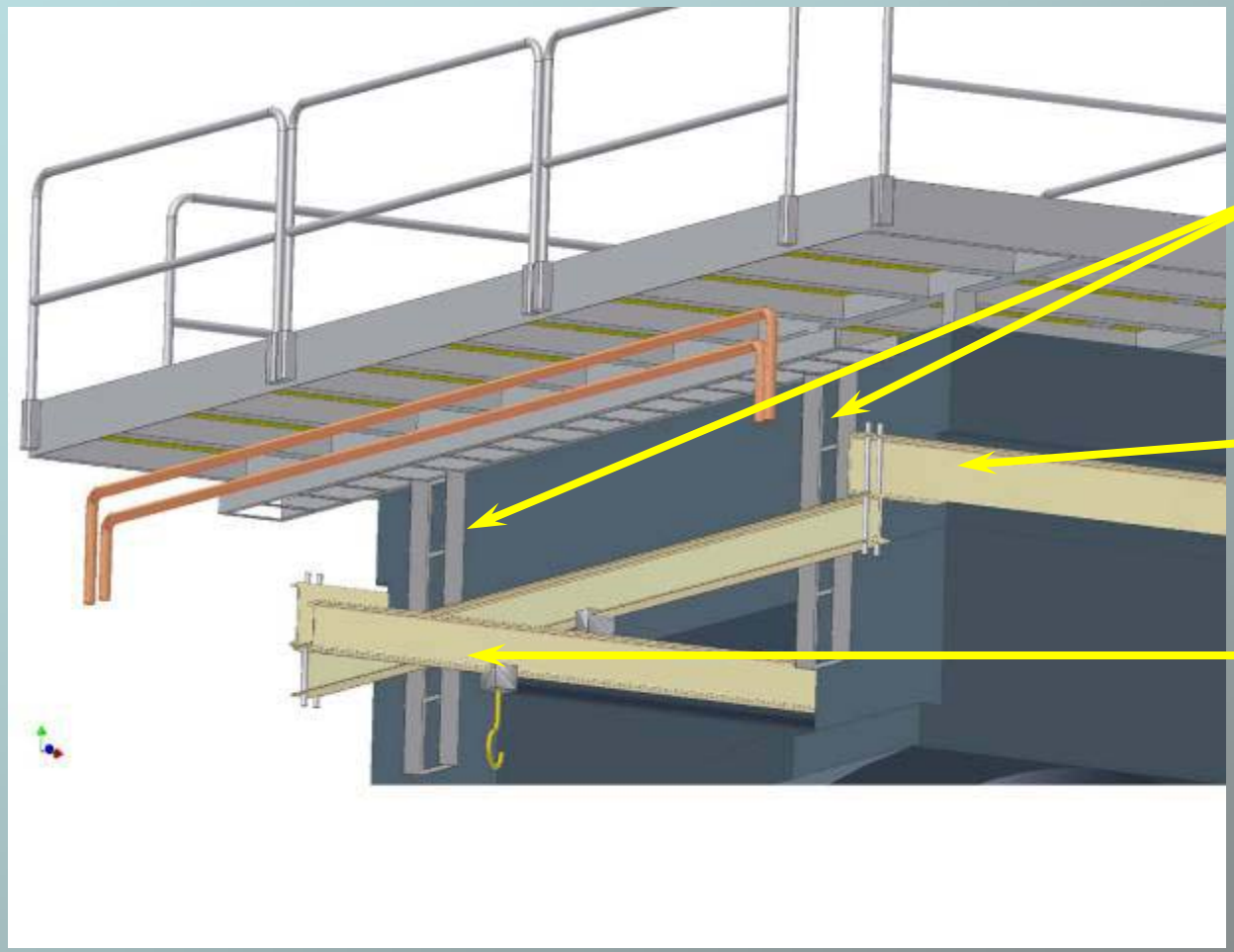
CM Region Crane & Cable Routing Concept



Cable Trays to route cables NCC Detector from Bridge

Crane Supports use existing flux return notches

CM Crane north-south & east-west motions; extended travel east to existing crane coverage

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C-A Tasks

Current Tasks

- General run support
- New storage trailer (as promised)
- Fix roof leaks

Tasks for Shutdown 2006

- Install access platforms from EC top north and MMS
- Replace emergency fan louvres
- Rewire/add IR ceiling lights on emergency power
- Replace WC sliding platform hoisting cables
- Mixing house exhaust fan maintenance

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Shutdown 2006

- June '06: end run 5, prep for start of shutdown, prep EC for move to AH
- July '06: TOF West installation, RXNP installation
- Aug. '06: MPC North installation, HBD installation
- Sep. '06: Detector subsystems maintenance, roll EC in, prep for run 6
- Oct. '06: Plan to start cooldown on Oct. 15th

Subsystems: Get requests for maintenance in early to get on theschedule

Links for weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found from the web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

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PHENIX Engineering & Tech Support Web Pages

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